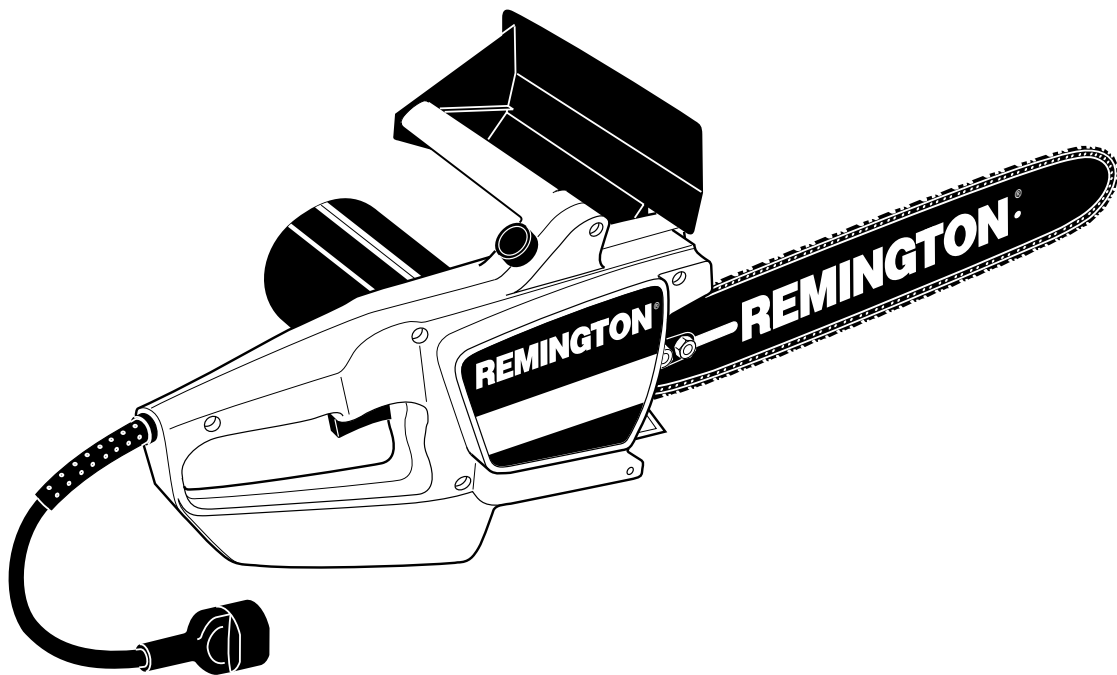


REMINGTON®

ELECTRIC CHAIN SAW OWNER'S MANUAL



MODELS

LNT-2: 076728J, 100089-06, & 099178H

EL-1, EL-1 Fast Sharp

EL-7: 075762J, 098031J, 099039J, 100015,
100089-01, 100089-04, 100089-05, & 100089-07

EL-7 Fast Sharp: 076702J

Pole Saw: 104316-01

Pole Saw Assembly: 104317

IMPORTANT: Read and understand this manual before assembling or operating this chain saw. Improper use of saw can cause severe injury. Keep this manual for future reference.



ELECTRIC CHAIN SAW



SAFETY WARNINGS

Make certain you read and understand all *Safety Warnings* on pages 2 and 3. Improper use of this chain saw can cause severe injury or death from fire, electrical shock, body contact with moving chain, or falling wood.

BEFORE OPERATING SAW

1. Read and understand this owner's manual before operating chain saw.
2. Watch what you are doing. Use common sense. Do not operate saw when you are tired.
3. Use chain saw for cutting wood only. Do not use chain saw for purpose not intended. Do not use for cutting plastic, masonry, etc.
4. Only well-instructed adults should operate chain saw. Never allow children to operate chain saw.
5. Use only electrical voltage noted on model plate of chain saw.
6. Use only extension cords marked for outdoor use. See page 8 for extension cord requirements.
7. Do not operate chain saw
 - while under the influence of alcohol, medication, or drugs
 - in rain or in damp or wet areas
 - where highly flammable liquids or gases are present
 - if saw is damaged, adjusted wrong, or not fully and securely assembled
 - if trigger does not turn saw on and off. Chain must stop moving when you release trigger. Have faulty switch replaced by authorized service center.
 - while in a hurry
 - while in tree or on a ladder unless trained to do so
8. Wear snug-fitting clothes when operating chain saw. Do not wear loose clothing or jewelry. They can get caught in moving saw chain.
9. Wear the following safety gear when operating chain saw.
 - heavy-duty gloves (wear rubber gloves when working outdoors)
 - steel-toed safety footwear with non-skid soles
 - eye protection such as safety glasses, goggles, or face screen
 - safety hard hat
 - ear muffs or ear plugs
 - hair covering to contain long hair
 - face or dust mask (if working in dusty areas)
10. Before cutting, always provide the following:
 - clear work area
 - secure footing
 - planned retreat path from falling tree
11. Inspect tree before cutting down. Make sure there are no dead limbs or branches that may fall on you.
12. To reduce the risk of electric shock, this saw has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet of your extension cord, reverse the plug. If it still does not fit, a polarized extension cord will be necessary. Do not change the plug in any way.

WHILE OPERATING SAW

1. Stay alert. Use common sense while operating chain saw.
2. Keep work area clean. Cluttered areas invite injuries.
3. Be aware of extension cord while operating chain saw. Be careful not to trip over cord. Keep cord away from chain and operator at all times.
4. Keep children, animals, and bystanders away from chain saw and extension cord. Only chain saw user should be in work area.
5. Do not cut down a tree unless you are trained or have expert help.
6. If two or more persons perform bucking and felling operations at the same time, provide plenty of distance between operations. Provide distance of at least twice the height of tree being felled.
7. Secure wood you are cutting by using clamps or chocks.
8. Grip chain saw firmly with both hands. Never operate chain saw with one hand. Never use hand guard as handle.
9. Keep finger off trigger until ready to make cut.
10. Before starting chain saw, make sure chain is not touching anything.
11. To guard against electrical shock, avoid body contact with grounded objects such as pipes, fences, and metal posts.
12. Keep all parts of body away from chain when saw is running.
13. Do not force chain saw while cutting. Apply light pressure. It will do the job better and safer at the rate for which it was intended.
14. Cut small brush and saplings with extreme care. Slender material may catch in chain and be whipped toward you. This could also pull you off balance.
15. When cutting limb or tree trunk that is under tension, use extreme caution. Be alert for wood springing back. When wood tension is released, limb could spring back and strike operator causing severe injury or death.
16. Carry chain saw from one place to another
 - with saw stopped and unplugged
 - by holding front handle (never use hand guard as handle)
 - with finger off trigger
 - with guide bar and chain to rear



SAFETY WARNINGS

KICKBACK

⚠ WARNING: Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. Tip contact in some cases may cause a lightning fast reverse reaction, kicking the guide bar up and back towards the operator. Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator. Either of these reactions may cause you to lose control of the saw which could result in serious injury to user.

Kickback Safety Devices On This Saw

This saw has a low-kickback chain and reduced kickback guide bar. Both items reduce the chance of kickback. Kickback can still occur with this saw.

Properly install front hand guard. This item can reduce injuries from kickback. Follow assembly instructions on page 6. Do not remove front hand guard. Do not replace front hand guard with substitute.

The following steps will reduce the risk of kickback.

- Use both hands to grip saw while saw is running. Use firm grip. Thumbs and fingers must wrap around saw handles.
- Keep all safety items in place on saw. Make sure they work properly.
- Do not overreach or cut above shoulder height.
- Keep solid footing and balance at all times
- Stand slightly to left side of saw. This keeps your body from being in direct line with chain.
- Do not let guide bar nose touch anything when chain is moving (see Figure 1).

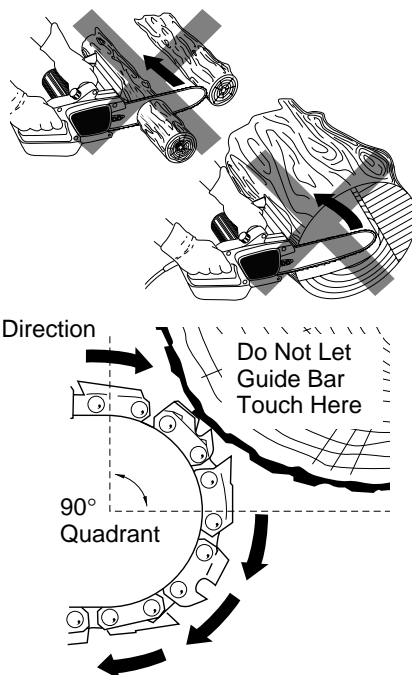


Figure 1 - Kickback Hazard Example: Do Not Let Nose of Guide Bar Touch Object While Chain is Moving

- Never try cutting through two logs at same time. Only cut one log at a time.
- Do not bury guide bar nose or try plunge cut (boring into wood using guide bar nose).
- Watch for shifting of wood or other forces that may pinch chain.
- Use extreme caution when re-entering a previous cut.
- Use low-kickback chain and guide bar supplied with this chain saw. Only replace these parts with chains and guide bars listed in this manual.
- Never use dull or loose chain. Keep chain sharp with proper tension.
- Do not hand sharpen chain on automatic chain sharpening (Fast Sharp) models.

Saw Maintenance and Kickback Safety

Follow maintenance instructions in this manual. Proper cleaning of saw and chain and guide bar maintenance can reduce chances of kickback. Inspect and maintain saw after each use. This will increase the service life of your saw. **Note:** Even with proper sharpening, risk of kickback can increase with each sharpening.

MAINTENANCE AND STORAGE OF CHAIN SAW

1. Unplug chain saw from power source
 - when not in use
 - before moving from one place to another
 - before servicing
 - before changing accessories or attachments, such as saw chain and guard
2. Inspect chain saw before and after each use. Check saw closely if guard or other part has been damaged. Check for any damage that may affect operator safety or operation of saw. Check for alignment or binding of moving parts. Check for broken or damaged parts. Do not use chain saw if damage affects safety or operation. Have damage repaired by authorized service center.
3. Maintain chain saw with care.
 - Never expose saw to rain.
 - Keep chain sharp, clean, and lubricated for better and safer performance.
 - Follow steps outlined in this manual to sharpen chain.
 - Keep handles dry, clean, and free of oil and grease.
 - Keep all screws and nuts tight.
 - Inspect power cord often. If damaged, have repaired by authorized service center.
 - Never carry chain saw by power cord.
 - Never yank power cord to unplug it.
 - Keep power cord from heat, oil, and sharp edges.
 - Inspect extension cords often and replace if damaged.
4. When servicing, use only identical replacement parts.
5. When not in use, always store chain saw
 - in a high or locked place, out of children's reach
 - in a dry place
 - in a carrying case or with scabbard over guide bar

Keep this manual for reference. It is your guide to safe and proper operation of this chain saw.

ELECTRIC CHAIN SAW

CHAIN SAW NAMES AND TERMS

Bucking Process of cutting a felled tree or log into lengths.

Felling Process of cutting down a tree.

Felling Cut Final cut when felling a tree. Make this cut on opposite side of tree from notching cut.

Front Handle Located at front of saw body.

Front Hand Guard Shield between front handle and guide bar. Protects left hand while using saw.

Guide Bar Metal bar that extends from saw body. The guide bar supports and guides chain.

Guide Bar Nose Tip or end of guide bar.

Kickback Quick backward and upward motion of guide bar. Kickback may occur when tip of guide bar touches an object while chain is moving. The guide bar will kick up and back towards operator.

Limbing Process of cutting limb(s) from a felled tree.

Low-Kickback Chain Chain that reduces chance of kickback as required by ANSI B175.1.

Normal Cutting Position Stance used while making bucking and felling cuts.

Notching Cut Notch cut in tree that directs fall of tree.

Oiler Control System for oiling guide bar and chain.

Power Head Chain saw without chain and guide bar. Also known as saw body.

Pushback (Kickback, Pinch) Rapid pushback of chain saw. Pushback may occur if chain along top of guide bar is pinched, caught, or contacts a foreign object.

Rear Handle Handle located at rear of saw body.

Reduced Kickback Guide Bar Guide bar that reduces chance of kickback.

Replacement Chain Chain that complies with ANSI B175.1 when used with a specific saw. It may not meet ANSI requirements when used with other saws.

Saw Chain (Chain) Loop of chain having cutting teeth for cutting wood. The motor drives chain. The guide bar supports chain.

Spiked Bumper (Spike) Pointed teeth at front of saw body beside guide bar. Keep spiked bumper in contact with wood when felling or bucking. It helps maintain position of saw while cutting.

Sprocket Toothed wheel that drives chain.

Switch Device that completes or interrupts electrical circuit to motor of saw.

Switch Linkage This device connects switch to trigger. It moves switch when you squeeze trigger.

Switch Lockout Device that reduces accidental starting of saw.

Trigger Device that turns saw on and off. Squeezing trigger turns saw on.

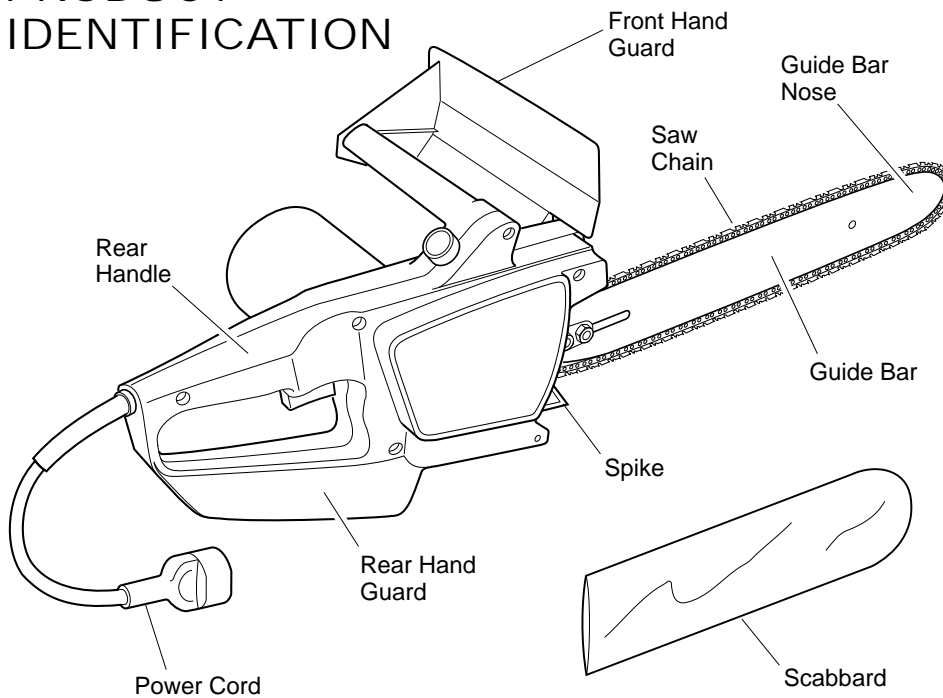
Releasing trigger turns saw off.

Trimming (Pruning) Process of cutting limb(s) from a living tree.

Undercut An upward cut from underside of log or limb. This is done while in normal cutting position and cutting with top of guide bar.

OWNER'S MANUAL

PRODUCT IDENTIFICATION



UNPACKING

1. Remove all items from carton.
2. Check all items for any shipping damage. If you find any damage or if any parts are missing, promptly inform dealer where you bought chain saw.

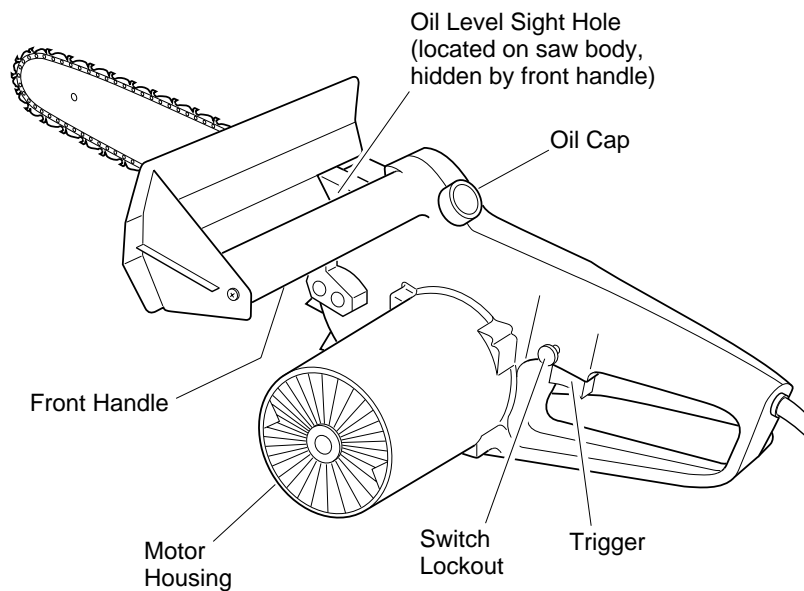


Figure 2 - Electric Chain Saw

ELECTRIC CHAIN SAW

ASSEMBLY

Note: Some models are pre assembled. Assembly is not needed on these models.

See *Saw Chain Tension Adjustment*, page 7.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

IMPORTANT: Do not clamp chain saw in vise during assembly.

The plastic hardware bag should include:

- two guide bar bolts
- two guide bar nuts
- one Phillips-head tapping screw
- automatic chain sharpener (Fast Sharp models only)

1. Lay chain out flat.
2. Install front hand guard onto saw body. Do this by pressing two mounting stand-outs on hand guard into hex-shaped holes in saw body (see Figure 3).
3. Insert tapping screw through hand guard and into saw handle. Tighten screw firmly.
4. Turn adjusting screw counterclockwise (see Figure 4). Continue to turn adjusting screw until adjusting block is to rear of adjusting plate.
5. Install guide bar onto saw body. Place rear of guide bar between adjusting plate and sprocket support.

IMPORTANT: Make sure to insert adjusting block into oval adjusting hole on guide bar.

6. Line up holes on sprocket support with center slot on guide bar and holes in saw body.
7. Insert guide bar bolts through front hand guard, saw body, center slot of guide bar, and sprocket support. Attach guide bar nuts to guide bar bolts.

IMPORTANT: Tighten guide bar nuts finger tight only. Make sure adjusting block is in oval adjusting hole on guide bar.

8. Place chain around drive sprocket, then along top groove of guide bar and around guide bar nose. **Note:** Make sure cutting edges of chain are facing the right direction. Position chain so cutting edges on top of guide bar face guide bar nose (see Figure 3).

⚠ CAUTION: Do not place chain on saw backwards. If chain is backwards, saw will vibrate badly and will not cut.

9. Adjust saw chain tension. Follow steps under *Saw Chain Tension Adjustment*, page 7.

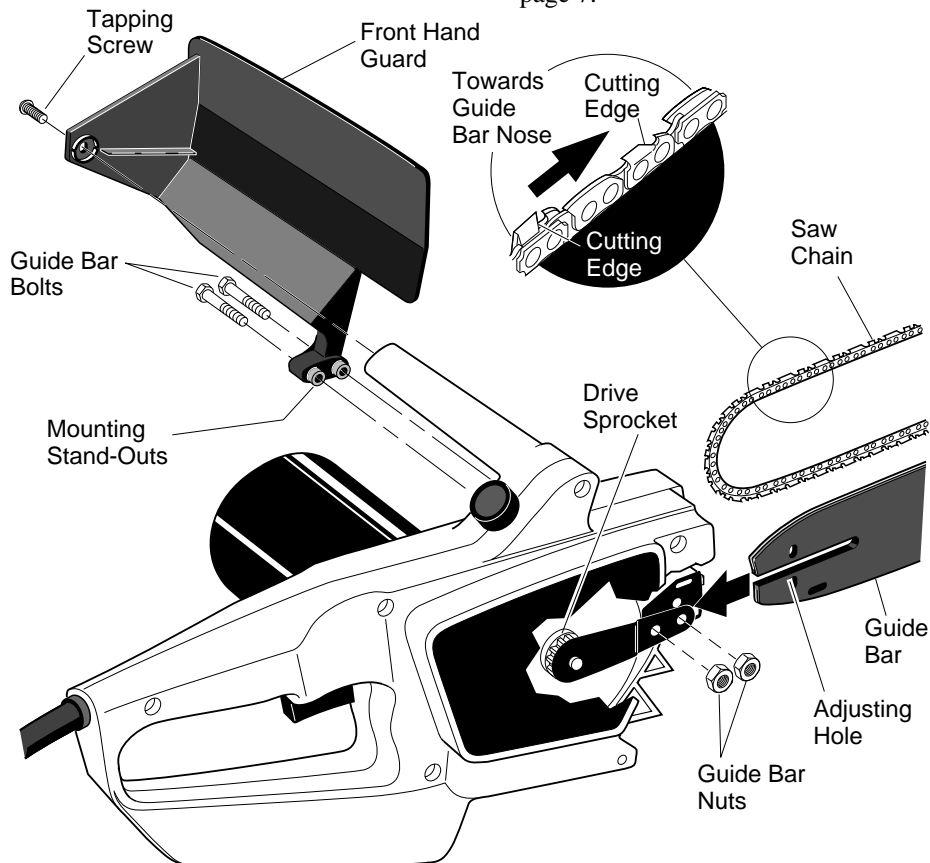


Figure 3 - Assembling Guide Bar, Chain, and Hand Guard

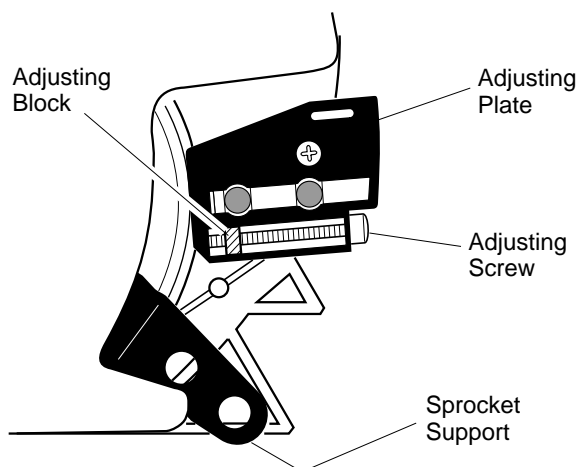


Figure 4 - Part Locations For Assembling Guide Bar

ASSEMBLY

Continued

INSTALLING AUTOMATIC CHAIN SHARPENER (Fast Sharp Models Only)

1. Screw automatic chain sharpener into threaded hole.
2. Continue turning automatic chain sharpener until you hear five (5) clicks.

Automatic Chain Sharpener

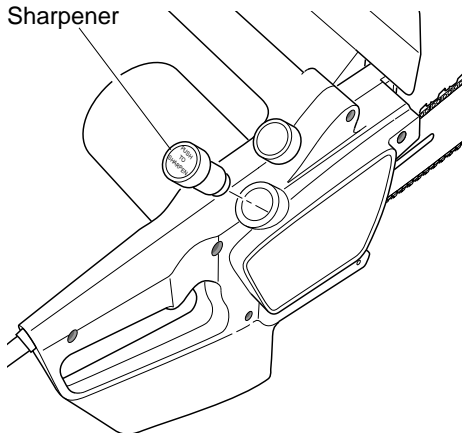


Figure 5 - Automatic Chain Sharpener (Fast Sharp Models Only)

SAW CHAIN TENSION ADJUSTMENT

⚠ WARNING: Unplug chain saw from power source before adjusting saw chain tension.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

⚠ WARNING: Maintain proper chain tension always. A loose chain will increase the risk of kickback. A loose chain may jump out of guide bar groove. This may injure operator and damage chain. A loose chain will cause chain, guide bar, and sprocket to wear rapidly.

Note: For pre assembled models, the saw chain tension is properly set at factory. A new chain will stretch. Check new chain after first few minutes of operation. Allow chain to cool down. Follow steps below to readjust saw chain tension.

1. Before adjusting chain, make sure guide bar nuts are only finger tight (see Figure 3, page 6). Also make sure adjusting block is in oval adjusting hole on guide bar (see Figures 3 and 4, page 6).
2. Turn adjusting screw clockwise until all slack is out of chain (see Figure 6).
Note: There should be no gap between side links of chain and bottom of guide bar (see Figure 7).
3. Wearing protective gloves, move chain around guide bar. Chain should move freely. If chain does not move freely, loosen chain by turning adjusting screw counterclockwise.
4. After chain tension is correct, tighten guide bar nuts firmly. If not, guide bar will move and loosen chain tension. This will increase the risk of kickback. This can also damage saw. **Note:** A new chain will stretch. Check new chain after first few minutes of operation. Allow chain to cool down. Readjust chain tension.

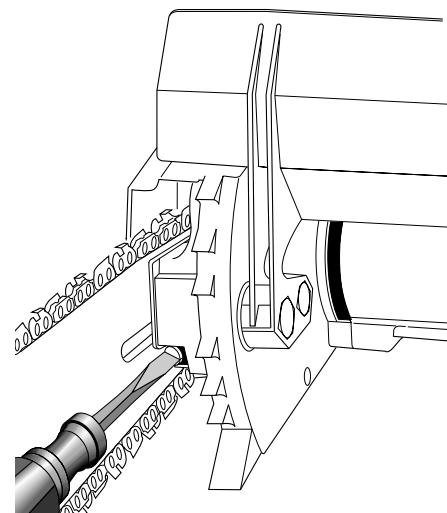


Figure 6 - Turning Adjusting Screw

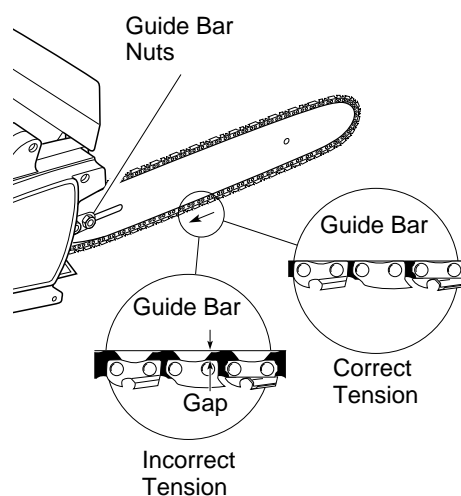


Figure 7 - Saw Chain Adjustment

FILLING OIL TANK

1. Remove oil cap.
2. Fill oil tank with SAE #30 motor oil.
Note: For temperatures below 30°F, use SAE #10 oil. For temperatures above 75°F, use SAE #40 oil.
3. Replace oil cap at once. Tighten oil cap firmly for good seal. This will avoid oil seepage from tank.
4. Wipe off excess oil.

Note: It is normal for oil to seep when saw is not in use. Empty oil tank after each use to prevent seepage.

ELECTRIC CHAIN SAW

OPERATING CHAIN SAW

⚠ WARNING: Read and understand this owner's manual before operating this saw. Make certain you read and understand all *Safety Warnings*, pages 2 and 3. Improper use of this chain saw can cause severe injury or death from fire, electrical shock, or body contact with moving chain, or falling wood.

EXTENSION CORDS

Use proper extension cords with this saw. Use only extension cords marked for outdoor use. The cord must be marked with suffix W or W-A following the cord type designation. *Example:* SJTW-A or SJTW.

Use proper sized cord with this saw. Cord must be heavy enough to carry current needed. An undersized cord will cause voltage drop at saw. Saw will lose power and overheat. Follow cord size requirements listed below.

Cord Length	AWG Cord Size
25 feet	16
50 feet	16
100 feet	14
150 feet	12

Keep cord away from cutting area. Make sure cord does not catch on branches or logs during cutting. Inspect cords often. Replace damaged cords.

The extension cord may come undone from the power cord during use. To avoid this, make a knot with the two cords as shown in Figure 8 below.

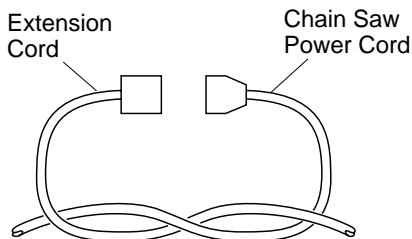


Figure 8 - Tying Extension Cord and Power Cord in Knot

OILING CHAIN

Always check oil level before using saw. To oil chain, press oil cap. Do not attempt to operate the oiler while cutting with the saw. Oil will feed onto guide bar and chain. Press oil cap at least once before each cut. Check oil level often by looking at oil sight level hole. Oil sight level hole is on left side of saw, between front handle and front hand guard.

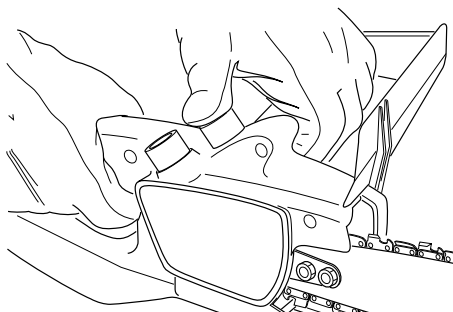


Figure 9 - Pressing Oil Cap to Oil Chain

CUTTING WITH THE CHAIN SAW

1. Connect saw to extension cord. Connect extension cord to power supply.
2. Make sure section of log to be cut is not laying on ground. This will keep chain from touching ground as it cuts through log. Touching ground with moving chain will dull chain.
3. Use both hands to grip saw. Always use left hand to grip front handle and right hand to grip rear handle. Use firm grip. Thumbs and fingers must wrap around saw handles (see Figure 10).
4. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet.

5. When ready to make a cut, press in switch lockout with right thumb and squeeze trigger (see Figure 10). This will turn saw on. Releasing trigger will turn saw off. Make sure saw is running at full speed before starting a cut.

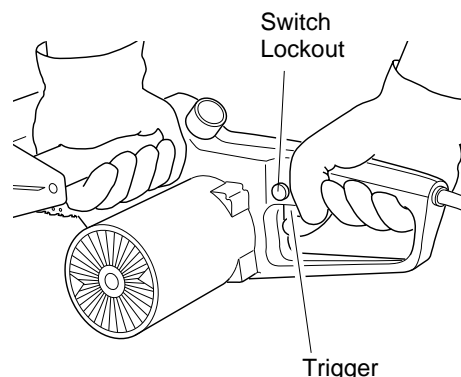


Figure 10 - Switch Lockout and Trigger Location

6. When starting a cut, place moving chain against wood. Hold saw firmly in place to avoid possible bouncing or skating (sideways movement) of saw.
7. Guide saw using light pressure. Do not force saw. The motor will overload and can burn out. It will do the job better and safer at the rate for which it was intended.
8. Remove saw from a cut with saw running at full speed. Stop saw by releasing trigger. Make sure chain has stopped before setting saw down.
9. Practice until you can maintain a steady, even cutting rate.

OPERATING CHAIN SAW SAW *Continued*

FELLING A TREE (Cutting Down a Tree)

⚠ WARNING:

- Avoid kickback. Kickback can result in severe injury or death. See *Kickback*, page 3 to avoid risk of kickback.
- Do not fell a tree without ample skill or expert help.
- Keep children, animals, and bystanders away from area when felling a tree.
- If two or more persons perform bucking and felling operations

⚠ **WARNING:** When felling a tree, be aware of your surroundings. Do not endanger any person, strike utility lines, or cause property damage. If tree strikes utility lines, contact utility company at once.

Felling is the process of cutting down a tree. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet. Follow directions below to fell a tree.

Before Felling a Tree

1. Before felling, inspect tree. Make sure there are no dead limbs or branches that may fall on you. Study natural lean of tree, location of larger branches, and wind direction. This will help you judge which way tree will fall.
2. Clear work area around tree.
3. Plan and clear a retreat path before felling. Make retreat path opposite to planned direction of fall of tree and at 45° angle (see Figure 11).
4. Remove dirt, stones, loose bark, nails, staples, and wire from tree where you will make felling cuts.
5. Stay on uphill side when felling tree. Tree could roll or slide downhill after falling.

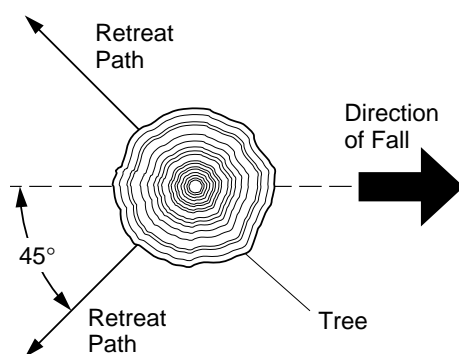


Figure 11 - Retreat Path From Tree

Felling Procedure

A) Felling Notch

A properly placed felling notch will determine direction tree will fall. Place felling notch on side of tree in direction you want tree to fall (see Figure 12). Follow directions below to create a felling notch.

1. Make lower notch cut as close to ground as possible. Hold saw so guide bar is horizontal. Cut 1/3 the diameter of tree trunk (see Figure 12). **Note:** Always make this horizontal lower notch cut first. If you make this cut second, tree can pinch chain or guide bar.
2. Start upper notch cut the same distance above first cut as first cut is deep.

Example: If lower notch cut is eight inches deep, start upper notch cut eight inches above it. Cut downward at 45° angle. The upper notch cut should meet end of lower notch cut (see Figure 12).

3. Remove tree trunk wedge created by notching cuts.

B) Felling Cut

1. Make felling cut two inches higher than lower notch cut and on opposite side of tree (see Figure 12). Keep felling cut parallel to lower notch cut.
2. Cut towards notch.

⚠ **WARNING:** Do not cut all the way through tree. Leave about two inches of tree diameter uncut directly behind felling notch (see Figure 12). This uncut portion acts as a hinge. The hinge helps keep tree from twisting and falling in wrong direction.

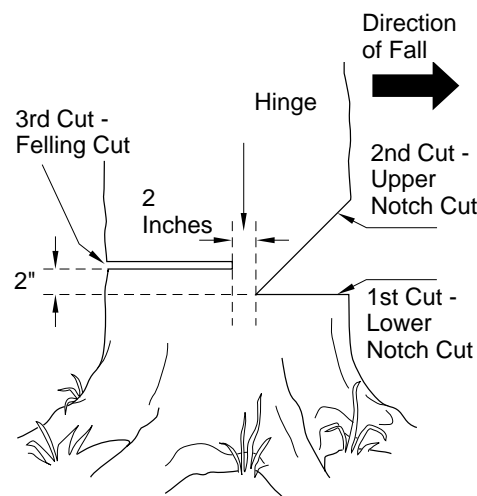


Figure 12 - Felling A Tree

3. As felling cut nears hinge, tree should begin to fall. **Note:** If needed, drive wedges into felling cut to control direction of fall. If tree settles back and pinches chain, drive wedges into felling cut to remove saw. Only use wedges made of wood, plastic, or aluminum. Never use wedge made of steel. This could cause kickback and damage to chain.
4. When tree begins to fall, quickly
 - remove saw from felling cut
 - release trigger to turn saw off
 - put saw down
 - exit area using retreat path

⚠ **WARNING:** Be alert for falling overhead limbs. Watch your footing while exiting area.

Continued

ELECTRIC CHAIN SAW

OPERATING CHAIN SAW

Continued

LIMBING A TREE

⚠ WARNING: Avoid kickback. Kickback can result in severe injury or death. See Kickback, page 3 to avoid risk of kickback.

⚠ WARNING: When cutting limb that is under tension, use extreme caution. Be alert for wood springing back. When wood tension is released, limb could spring back and strike operator causing severe injury or death.

Limbing is removing branches from a fallen tree. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet. Do not remove larger limbs under tree that support log off ground. Remove each limb with one cut (see Figure 13). Clear cut limbs from work area often. This will help maintain a safe work area.

Make sure you start your cut where limb will not pinch saw during cutting. To avoid pinching, start cut on freely hanging limbs from above limb. Start cut on limbs under tension from under limb. If pinch occurs, turn saw off, lift limb, and remove saw.

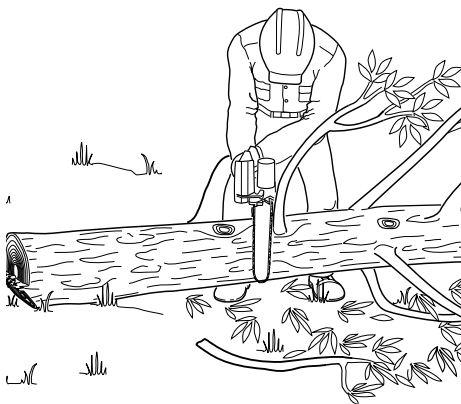


Figure 13 - Limbing A Tree

BUCKING A LOG

⚠ WARNING: Avoid kickback. Kickback can result in severe injury or death. See Kickback, page 3 to avoid risk of kickback.

⚠ WARNING:

- If on slope, make sure log will not roll down hill. Secure log by using wooden stakes. Drive wooden stakes into ground on downhill side of log. Stand on uphill side of log while cutting. Log may roll after cutting.
- Never try cutting through two logs at same time. This could increase the risk of kickback.
- While cutting log, never hold log with your hand, leg, or foot.
- While cutting log, never allow another person to hold log.
- Turn off and unplug saw before moving from one place to another.

Bucking a log is cutting a log into sections. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet. When possible, raise log or section off ground. Do this by using limbs, logs, chocks, etc.

When cutting through log, maintain control by reducing cutting pressure near end of cut. Do not relax your grip on chain saw handles. Do not let moving chain touch ground. Ground will dull moving chain. After cutting through log, release trigger to turn saw off before moving saw.

Follow directions below to buck a log.

Entire Length Of Log On Ground

Cut log from top (see Figure 14).

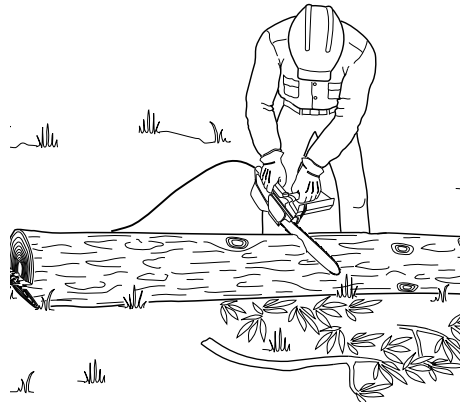


Figure 14 - Bucking Log With Entire Length On Ground

Log Supported On One End

1. Make first cut on underside of log (see Figure 15). Use top of guide bar to make this cut. Cut 1/3 through diameter of log. This cut will keep section from splintering when cut.
2. Make second cut directly above first cut. Cut down to meet first cut. This cut will keep log from pinching guide bar and chain.

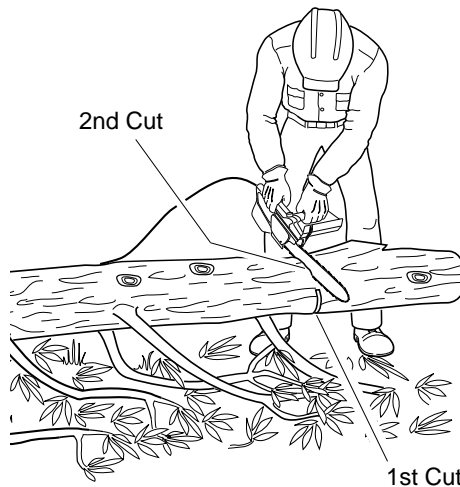


Figure 15 - Bucking Log When Log Is Supported On One End

OPERATING CHAIN SAW

Continued

Log Supported On Both Ends

1. Make first cut from above log (see Figure 16). Cut 1/3 through diameter of log. This cut will keep section from splintering when cut.
2. Make second cut on underside of log, directly under first cut. Use top of guide bar to make this cut. Cut up to meet first cut. This will keep log from pinching guide bar and chain.

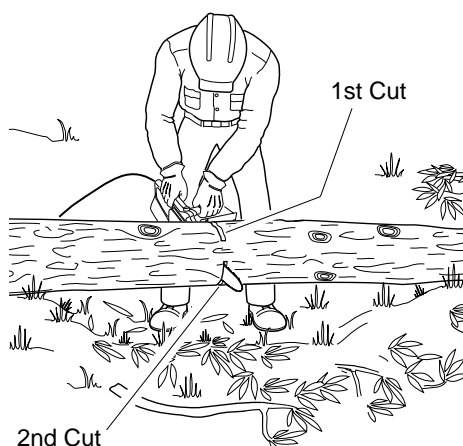


Figure 16 - Bucking Log When Log Is Supported On Both Ends

TRIMMING A TREE (Pruning)

⚠ WARNING: Avoid kickback. Kickback can result in severe injury or death. See Kickback, page 3 to avoid risk of kickback.

⚠ WARNING: Do not operate chain saw while

- in a tree
- on a ladder or any other unstable surface
- in any awkward position

You may lose control of saw causing severe injury.

⚠ WARNING: Do not cut limbs higher than your shoulders.

⚠ CAUTION: Seek professional help if facing conditions beyond your ability.

Trimming a tree is the process of cutting limbs from a living tree. Make sure your footing is firm. Keep feet apart. Divide your weight evenly on both feet. Follow directions below to trim a tree.

1. Make first cut six inches from tree trunk on underside of limb. Use top of guide bar to make this cut. Cut 1/3 through diameter of limb (see Figure 17).
2. Move two to four inches farther out on limb. Make second cut from above limb. Continue cut until you cut limb off.
3. Make third cut as close to tree trunk as possible on underside of limb stub. Use top of guide bar to make this cut. Cut 1/3 through diameter of stub.
4. Make fourth cut directly above third cut. Cut down to meet third cut. This will remove limb stub.

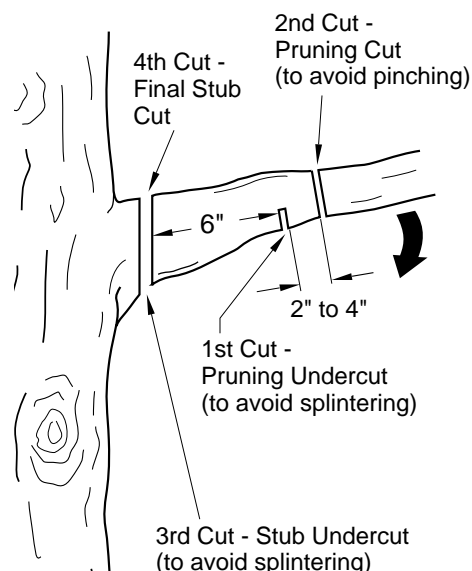


Figure 17 - Cutting A Limb

ELECTRIC CHAIN SAW

CLEANING AND MAINTENANCE

NOTICE: Below are instructions for servicing your chain saw. Any servicing not mentioned below should be done by an authorized service center.

CLEANING SAW BODY

⚠ WARNING: Unplug chain saw from power source before servicing. Severe injury or death could occur from electrical shock or body contact with moving chain.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

⚠ WARNING: When cleaning saw body,

- do not submerge saw in any liquids
- do not use products that contain ammonia, chlorine, or abrasives
- do not use chlorinated cleaning solvents, carbon tetrachloride, kerosene, or gasoline

Keep saw body clean. Use a soft cloth dampened with a mild soap and water mixture. Wipe saw body to clean.

CARE OF GUIDE BAR

Uneven bar wear causes most guide bar problems. Incorrect sharpening of chain cutter and depth gauge settings often cause this. When bar wears unevenly, it widens guide bar groove (see Figure 18). This causes chain clatter and rivet popping. Saw will not cut straight. Replace guide bar if this occurs.

Inspect guide bar before sharpening chain. A worn or damaged guide bar is unsafe. A worn or damaged guide bar will damage chain. It will also make cutting harder.

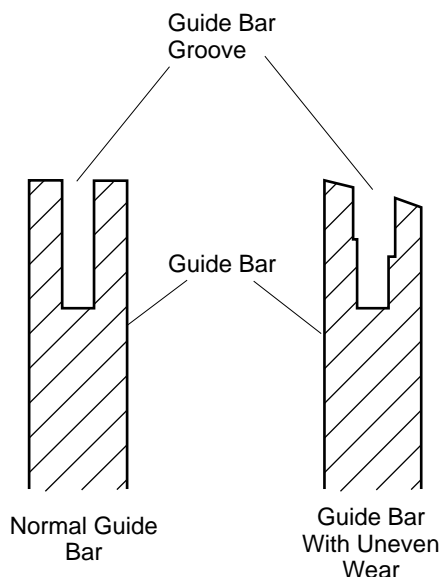


Figure 18 - Guide Bar Cross Section Showing Uneven Bar Wear

Normal Guide Bar Maintenance

1. Remove guide bar from chain saw.
2. Remove sawdust from guide bar groove periodically. Use putty knife or wire.
3. Clean oil slots after each day of use.
4. Remove burrs from sides of guide bar. Use flat file to make side edges square.

Replace guide bar when

- bar is bent or cracked
- inside groove of bar is badly worn

Note: When replacing guide bar, see *Replacement Parts and Accessories*, on back cover, for proper bar.

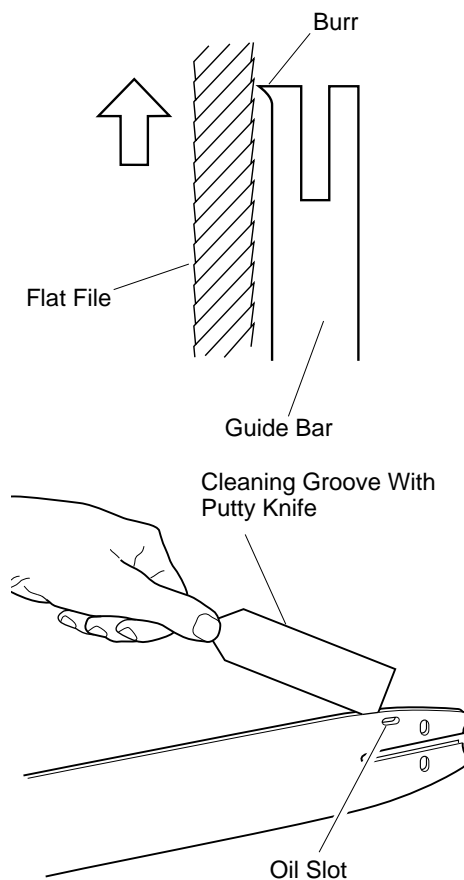


Figure 19 - Guide Bar Maintenance

CLEANING AND MAINTENANCE

Continued

SHARPENING SAW CHAIN (Non-Fast Sharp Model)

⚠ WARNING: Unplug chain saw from power source before servicing. Severe injury or death could occur from electrical shock or body contact with moving chain.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

Keep chain sharp. Your saw will cut faster and more safely. A dull chain will cause undue sprocket, guide bar, chain, and motor wear. If you must force chain into wood and cutting creates only sawdust with few large chips, chain is dull.

Items Needed to Sharpen Chain

Purchase these items from your local dealer, hardware store, or chain saw supplies outlet.

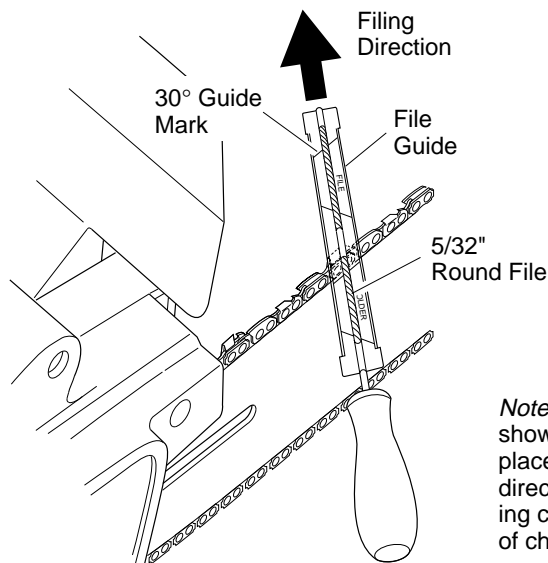
- 5/32" round file
- Depth gauge tool
- File guide
- Vise
- Medium sized flat file

Sharpening Cutters

Use file guide for 30° filing.

1. Adjust chain for proper tension (see *Saw Chain Tension Adjustment*, page 7).
2. Clamp guide bar in vise to hold saw steady. **Note:** Do not clamp chain.
3. Press 5/32" round file (attached to file guide) into groove between top plate and depth gauge on chain. File guide should rest on both top plate and depth gauge (see Figures 20 and 21). **Note:** File at midpoint of guide bar.

4. Hold file guide level. Make sure 30° mark on file guide is parallel to center of guide bar (see Figure 20). This will insure that you file cutters at 30° angle.
5. File from inside towards outside of cutter until sharp. Only file in this one direction (see Figure 20). **Note:** Two or three strokes with file should sharpen cutter.
6. After each cutter if sharpened, move chain forward to sharpen next cutter. File all cutters on one side of chain.
7. Move to other side of chain and repeat process.



Note: This illustration shows file guide placement and filing direction for sharpening cutters on left side of chain.

Figure 20 - File and File Guide Placement On Chain

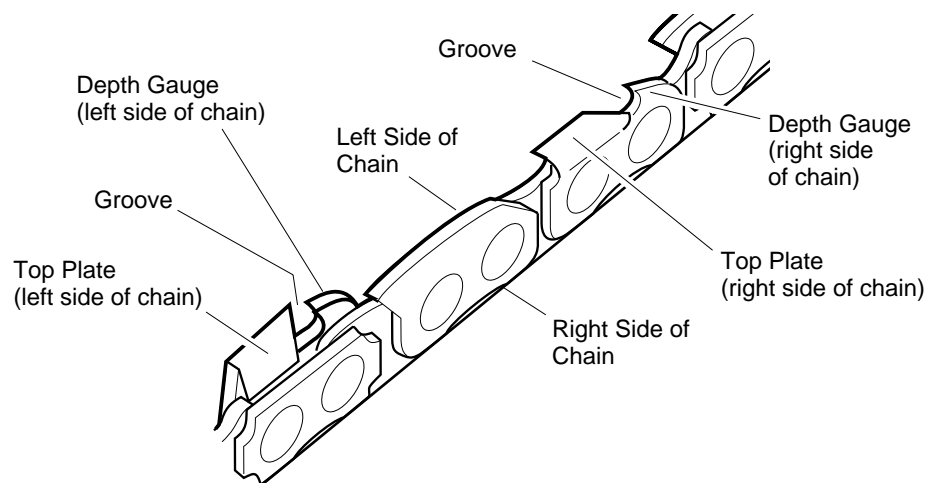


Figure 21 - Chain Part Locations

Continued

ELECTRIC CHAIN SAW

CLEANING AND MAINTENANCE *Continued*

Filing Cutter Depth Gauges

The cutter depth gauge clearance is reduced as cutters are sharpened. After every second or third sharpening, reset cutter depth gauges.

1. Place depth gauge tool (.025") firmly across top of two cutters. Make sure depth gauge enters slot in depth gauge tool (see Figure 22).
2. Use medium flat file. File depth gauge level with depth gauge tool.
3. Remove depth gauge tool. With flat file, round off front corner of cutter depth gauge (see Figure 23).

After several hand filings, have authorized service center or sharpening service machine sharpen chain. This will insure even filing.

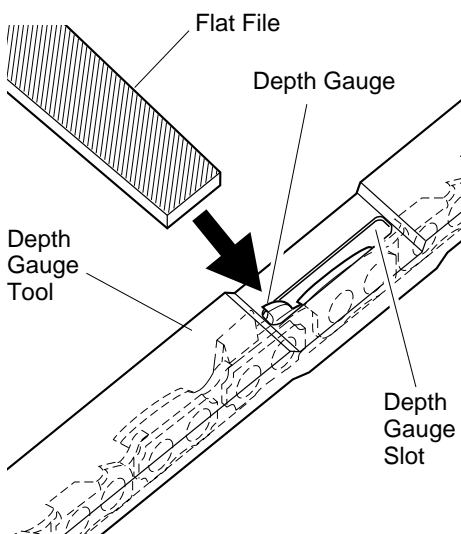


Figure 22 - Depth Gauge Tool On Chain

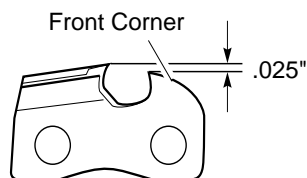


Figure 23 - Round Off Front Corner Of Depth Gauge

SHARPENING SAW CHAIN (Fast Sharp Model)

⚠ WARNING: Unplug chain saw from power source before servicing. Severe injury or death could occur from electrical shock or body contact with moving chain.

⚠ WARNING: Cutting edges on chain are sharp. Use protective gloves when handling chain.

⚠ WARNING: Do not hand-sharpen this Fast Sharp chain. Hand-sharpening chain will increase risk of kickback.

Keep chain sharp. Your saw will cut faster and more safely. A dull chain will cause undue sprocket, guide bar, chain, and motor wear. If you must force chain into wood and cutting creates only sawdust with few large chips, chain is dull.

Follow the steps below to sharpen Fast Sharp chain. The automatic chain sharpener sharpens cutter, lowers cutter depth gauge, and adjusts guard drive link.

1. Adjust saw chain for proper tension (see *Saw Chain Tension Adjustment*, page 7).
2. Clean out excess sawdust and wood chips from drive sprocket area.
3. Turn sharpener knob counterclockwise until clicking stops (see Figure 24).
4. Turn sharpener knob clockwise until you hear five distinct clicks.

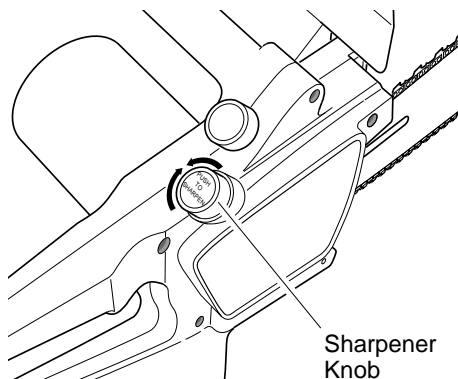


Figure 24 - Turning Sharpener Knob

5. Place saw on clean, flat surface.
6. Connect saw to power supply.
7. Hold saw, with both hands in normal cutting position.
8. Press in switch lockout with right thumb and squeeze trigger.
9. Gently push on sharpener knob. Saw must be running for chain to sharpen.

Note: Sparks appearing shows sharpener is working (see Figure 25). If no sparks appear, continue to adjust sharpener one click at a time. After each click, press sharpener knob until light flow of sparks appears.

After several sharpenings, you must turn sharpener knob more to bring stone into position.

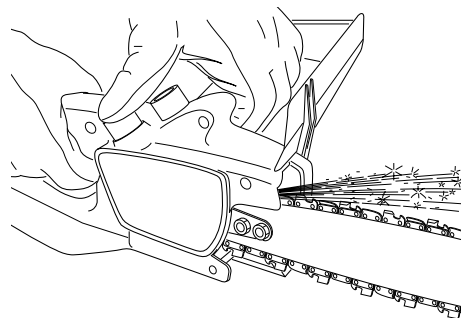


Figure 25 - Sharpening Fast Sharp Chain

REPLACING SAW CHAIN

Replace chain when cutters are too worn to sharpen or when chain breaks. Only use replacement chain noted in this manual. Always include new drive sprocket when replacing chain. This will maintain proper driving of chain. **Note:** For proper chain and drive sprocket, see *Replacement Parts and Accessories*, on back cover.

OWNER'S MANUAL

TROUBLESHOOTING

⚠ WARNING: Unplug chain saw from power source before servicing. Severe injury or death could occur from electrical shock or body contact with moving chain.

OBSERVED FAULT	POSSIBLE CAUSE	REMEDY
Saw runs, but does not cut.	Chain assembled backwards on guide bar	See Assembly, page 6
Saw does not cut unless heavily forced. Cutting produces only sawdust with few large chips.	Chain is dull	See Sharpening Saw Chain, page 13 (non-Fast Sharp model) or page 14 (Fast Sharp model)
Saw runs slow. Saw stalls easily.	Low power supply voltage	Extension cord wire size too small. See Extension Cords, page 8
Motor of saw does not run when you squeeze trigger.	<ol style="list-style-type: none">1. Switch lockout not pressed in to release trigger2. Extension cord connections loose3. Open line fuse or circuit breaker4. Bad motor brushes5. Open wiring circuit on saw	<ol style="list-style-type: none">1. Press in switch lockout before squeezing trigger2. Check cord connections3. Check line fuse or circuit breaker4. See authorized service center5. See authorized service center
Motor of saw runs, but chain does not move.	Gear train failure	See authorized service center
Chain does not get oil.	<ol style="list-style-type: none">1. Clogged oil slot in guide bar2. Oil is too thick	<ol style="list-style-type: none">1. Remove guide bar and clean oil slot2. Use correct weight of oil. See <i>Filling Oil Tank</i>, page 7
Chain comes off guide bar.	<ol style="list-style-type: none">1. Chain is loose2. Guide bar and chain not assembled right	<ol style="list-style-type: none">1. Tighten chain. See <i>Saw Chain Tension Adjustment</i>, page 72. See <i>Assembly</i>, page 6
Saw smokes.	Saw damaged. Do not use saw.	See authorized service center
Saw leaks oil.	Oil cap is not secure.	Tighten oil cap. Note: Empty oil tank when not in use.

STORAGE

If storing saw for more than 30 days, follow steps below.

1. Drain oil tank.
2. Remove and clean guide bar and chain. Clean guide bar and chain by soaking in petroleum based solvent or mild soap and water mixture.
3. Dry guide bar and chain.
4. Place chain in container filled with oil. This will prevent rust.
5. Wipe a thin coating of oil over surface of guide bar.

6. Wipe off outside of saw body. Do this with soft cloth dampened with a mild soap and water mixture.
7. Store chain saw
 - in a high or locked place, out of children's reach
 - in a dry place
 - in a carrying case or with scabbard over guide bar

TECHNICAL SERVICE

You may have further questions about assembling, operating, or maintaining this saw. If so, contact DESA International's Technical Service Department at 1-800-323-5190.

SERVICE PUBLICATIONS

You can buy a service manual from address listed on back page of this manual. Send a check for \$5.00 payable to DESA International.

You can receive an illustrated parts list free of charge. Send a self-addressed stamped envelope to address on back page of this manual.

When writing, include model number and serial number of saw. You will find these numbers on saw motor housing decal.

REPAIR SERVICE

Note: Only use original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

Each authorized service center is independently owned and operated. For additional service center or warranty information, call 1-800-323-5190.

Warranty Service

If saw requires warranty service, return it to nearest authorized service center. You must show proof of purchase. If faulty materials or workmanship caused damage, we will repair or replace saw without charge.

Non-Warranty Service

If saw requires service, return it to nearest authorized service center. Repairs will be billed to you at regular repair list prices. **Note:** Normal wear, misuse, abuse, neglect, or accidental damage is not covered under warranty.

Model	_____
Serial No.	_____
Date Purchased	_____

ELECTRIC CHAIN SAW LIMITED WARRANTY

Always specify model and serial numbers when writing the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

DESA International warrants this electric chain saw and any parts thereof, to be free from defects in material and workmanship for one year from the date of first purchase from an authorized dealer, provided that the product has been properly maintained and operated in accordance with all applicable instructions. The bill of sales or proof of purchase must be presented at the time a claim is made under this warranty.

This warranty is extended only to the original retail purchaser. This warranty covers only the parts and labor required to restore this chain saw to its proper operating condition. Warranty parts must be obtained through factory authorized dealers and service centers for this product. These dealers and service centers will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty.

This warranty does not cover commercial, industrial, or rental usage, nor does it apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accident, lack of proper maintenance, tampering, or alteration. Travel, handling, transportation, and incidental costs associated with warranty repairs are not reimbursable under this warranty and are the responsibility of the owner.

To the full extent allowed by the law of the jurisdiction that governs the sale of the product, this express warranty excludes any and all other expressed warranties and limits the duration of any and all implied warranties, including warranties of merchantability and fitness for a particular purpose to one year from the date of first purchase, and DESA International's liability is hereby limited to the purchase price of the product and DESA International shall not be liable for any other damages whatsoever including indirect, incidental, or consequential damages.

Some states do not allow limitation of how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation of damages may not apply to you.

This warranty provides the original purchaser with specific rights. For information regarding those rights, please consult the applicable state laws.

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